PRO FORMA CASH FLOW
ANALYSIS PROGRAM
USER'S MANUAL

Submitted to

THE ECONOMIC DEVELOPMENT DIVISION
DEPARTMENT OF INTERGOVERNMENTAL RELATIONS
STATE OF MONTANA

By

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This report describes the use of a computer program to assist in the economic analysis of operations of a manufacturing firm over time. The program, originally written at Montana State University, has been modified by EPIC Research, Inc. under contract with the Department of Intergovernmental Relations, Economic Development Division, to expand its scope and facilitate its application by remote terminal input from Helena, Montana to the MSU computer center in Bozeman, Montana. The program is adequately documented. Together with the user's manual and supplement report, it is designed to serve the needs of analysts investigating the economic feasibility of various manufacturing firms.

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SECTION I

GUIDE TO GATHERING DATA

INTRODUCTION

The Pro Forma Cash Flow Analysis (PFCFA) program has been written to facilitate a thorough feasibility study and economic analysis of a manufacturing firm with a significant reduction in the manhours required. This manual is intended to serve as an aid to the investigator as information is gathered. Section II of this manual is intended to aid the person who transfers data from the worksheets to the coding forms. Preparation of a machine-readable document is also discussed. Finally, Section III contains an outline of the process of running the computer program.

A complete description of the workings of the computer program can be obtained by contacting one of the authors. However, a brief introduction to the program is provided here to aid in its use.

BASIC PROCESS

Figure 1 is a general flowchart of the process used in the computer program. The following numbered paragraphs follow the sequence of the functions depicted in Figure 1.

1 - Input

The need to obtain input for the program is handled through worksheets. Data is organized on the worksheets before being transferred to coding forms (see Section II) for entry into the computer.

2 - Total Revenue

The total revenue, by year, is calculated by taking the sum of various product prices times yearly demand adjusted for a sales discount if specified.

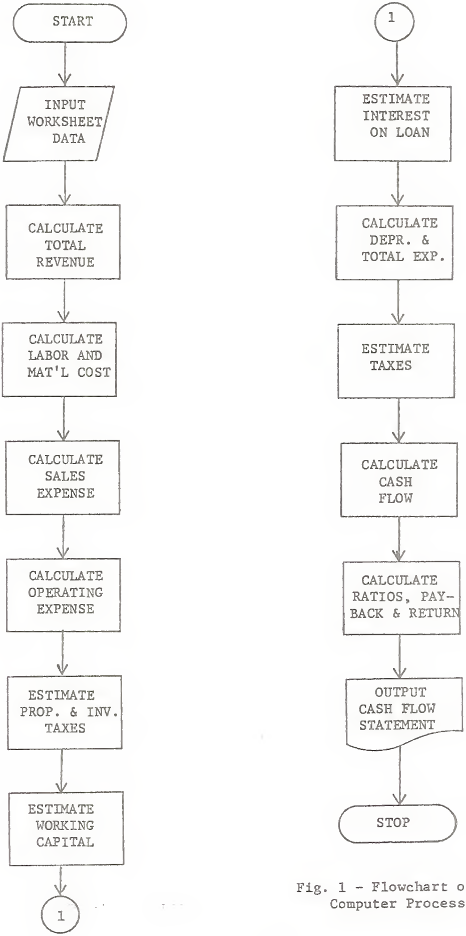

Fig. 1 - Flowchart of the Computer Process

3 - Labor and Material Costs

The material cost is the sum of direct and indirect costs as read by the program from the worksheets.

The labor cost is calculated by multiplying the cost per wage class times the estimated hours required per product for each class.

4 - Sales Expense

The sales expense is currently input as a percentage of total revenue per year and is calculated in this manner.

5 - Operating Expenses

The majority of all operating expenses are added together as inputted to the program. Notable exceptions are the need to calculate electrical power consumption and cost, and fringe benefit costs.

6 - Property and Inventory Taxes

Property Taxes are estimated based on specified property tax classifications (input to the program) and the assumption of a standard 60% reduction from "fair value" to "assessed value." The program automatically adjusts for Class 7 equipment at the end of year 3.

Inventory Taxes are estimated by making the following two assumptions: (1) that inventories are Class 3, and (2) that a 33.3% reduction from fair value to assessed value can be used. The dollar value of the inventory is also estimated based on input.

7 - Working Capital

Working capital is estimated from the full and fair values of four items. The raw and finished goods inventories are the first two. Start-up expenses, as inputted to the program, is the third. The fourth is an estimate of the cash needed to meet steady-state operation based upon material and labor costs for the period established by the investigator.

8 - Interest

The program calculates total capital needed less equity money available. Using the value of "n" and "i" specified on the worksheets, the program calculates the interest charges and principal payments per year.

9 - Depreciation and Total Expenses

Depreciation is calculated on one of two schedules. Either the Straight Line Method or the Sum of the Years Digits Method must be used on each piece of equipment. The program also allows for the use of the First Year Depreciation allowance on some items of equipment within IRS restrictions. The total expense is calculated by summing all previous estimates.

10 - Taxes

For simplicity, state taxes are calculated at 6 3/4% and do not allow loss carry forward. The program allows for personal or corporate standing only. Corporate federal taxes are estimated at 22% for the first $25,000 and 48% for all additional income unless previous income is entered. In the case of previous income, a rate is approximated. Personal federal taxes are estimated from the 1974 Schedule for Married Taxpayers Filing Jointly.

11 - Cash Flow

The cash flow is calculated by adding depreciation to net income. The program also adjusts federal taxes for loss carry forward. The adjusted cash flow is calculated by subtracting the loan principal payment from the cash flow for each year.

12 - Ratios, Payback and Return

Several profitability ratios are calculated in this section as well as payback periods based on the cash flow and adjusted cash flow. In addition, a rate of return on invested equity is calculated.

13 - Output

The program output is in the form of a pro forma income statement. The program prints specific information for the first five years of the study separately plus an additional average set of values for the sixth year through the end of the study.

DATA INPUT

The following are summaries of each input section. The units used on each variable should be carefully reviewed so that the input conforms to that demanded by the computer program. This section should be reviewed jointly with the attached worksheets to facilitate the computer input process.

Study Parameters Input

(1) Number of Years of Real Growth

The program allows the user to input different data (i.e., that which evidences real growth of the firm under study) for each of six years. The number of years for which real growth data will be input is given here. The program duplicates the final year's data for all succeeding years (if this number is less than six). In other words, if this number is input as 4, the user must supply data for Years 1, 2, 3, and 4 throughout the worksheets. The data used by the program for Years 5 and 6 through the end of the study will be duplicates of that entered for Year 4.

(2) Number of Years Over Which the Study is to be Conducted

The program allows for a feasibility study to be conducted over a time period of up to twenty years.

Sales Input

(1) Number of Products for Each Year

Products can be listed separately or grouped into classes, but the number used in each year of the analysis must be entered separately. The investigator may specify the manufacture of only one product if desired.

(2) Selling Price by Product

List the selling price as received by the firm under study for each product in each year.

(3) Demand by Product

To accurately generate a cash flow, the estimated demand by product for each year is necessary. This data should be entered by product. If demand for a particular product in a given year drops to zero, this must also be entered.

(4) Sales Discount by Product

To allow for the potential of sales discounts, a number of provisions can be used. First, the average sales price can be reduced to reflect any discounts. Second, an average percentage discount can be estimated and entered here. A sales discount of some value (zero or greater) must be entered for each product in each year. For example, assume the user inputs data for 6 products and all but product 5 have zero per cent discounts with number 5 having a 3 per cent discount. The data would be entered as:

.0,.0,.0,.0,.03,.0

The data entered for items (2), (3), and (4) must be consistent with that entered for item (1). For example, if the number of products entered for Year 1 is 3, there must also be 3 values for selling price, demand, and sales discount entered for Year 1. Further, this consistency must be maintained throughout the entire study (i.e., when filling out the worksheets).

Labor and Material Input

(1) Wage Classes for Each Year

In order to provide a degree of flexibility in the labor calculations, the input has been structured to allow for different wage classes. The program requires at least one wage class and allows up to 10.

(2) Wage Rate by Wage Class

The dollar pay scale per hour for each wage class in each year should be entered to coincide with the number of wage classes for that year. For example, if a firm has 4 wage classes in any one year, paying an average of \$2.00, \$3.00, \$4.00, and \$5.00, this data would be entered as 2.00, 3.00, 4.00, 5.00, and the recorded hours of labor in Class 2 would be charged against the project at \$3.00 per hour.

(3) Labor Hours by Product and Wage Class

The number of hours of labor in each wage class required to produce a unit of product must be entered for each product in each year.

(4) Indirect Labor by Product

Labor which cannot be efficiently charged to specific production orders is charged to indirect labor on an allocation basis. Examples of this would be material handlers, janitors, delivery boys, and stockroom

personnel. This should not include maintenance labor.

For each product, an estimate is needed of this indirect labor expense. For convenience the indirect labor is estimated as a per cent of the direct labor dollars by product. For example, given 4 products, an estimate must be made of the per cent of direct labor cost that would represent indirect labor cost for each product. For these four products these might be 15%, 18%, 11%, and 33%. These items would be entered as:

.15, .18, .11, .33

(5) Direct Material by Product

The cost of materials which can be identified in terms of a specific quantity chargeable to a unit, job or customer order is input here. The cost includes freight in the delivered price.

For each product the cost of direct material per unit must be entered. For example, given 4 products with a direct materials cost of $3.37, $4.13, $11.92, and $4.00, data would be entered as:

3.37, 4.13, 11.92, 4.00

following the guide of the worksheet.

(6) Indirect Material by Product

The cost of materials which are not charged by a measured quantity to a specific job are allocated to various products and input here. Examples are inexpensive nuts, bolts, paint, welding rods, etc.

Sales Expense Input

(1) Sales Expense for Each Year

The sales expense input as presently included allows for this expense to be input as a per cent of total revenue. These per cent figures are

input as the decimal equivalent of the per cent. For example, 1% is input as .01.

Operating Expense Inputs

(1) Number of Hours of Operation per Day
for Each Year

(for example 16 hrs. = 2-8hr shifts)

(2) Number of Hours per Week of Operation
for Each Year

(for example 80 = 2-8hr shifts, 5 days)

(3) Supervision Costs per Hour for
Each Year

Foremen, production supervisors and other line personnel working in supervisory capacity are included here. This cost should be listed as a dollar per hour cost for all products in the product line.

(4) Fringe Benefits for Each Year

Fringe benefits for all labor and supervisory personnel include social security, unemployment compensation, workmen's compensation, vacation pay, sick leave pay, insurance plan, retirement plan and holidays. This figure should be entered as a per cent of labor dollars.

(5) Labor Variance for Each Year

If standard data is used for calculating the labor costs, a variance amount should be estimated to reflect the expected differences between actual cost and standard cost. This value is a yearly dollar figure over the entire product line.

(6) Other Operating Expenses

This value is simply a yearly dollar amount allowed to cover any operating costs not noted elsewhere. It may also be used to add a slight

contingency, above the allocated contingency, if this is deemed necessary. Again, a dollar per year amount is entered directly.

(7)-(10) Electricity Used for Production for Each Year

This cost is estimated on a yearly basis. The actual cost is calculated based on the number of watts required. The information needed is:

(7) Production Lights - watts needed (A realistic value would be 160 watts/100 sq. ft.)

(8) Production Heat - watts needed

(9) Other Production Needs - watts needed

(10) Horsepower of Production Equipment

(11) Fuel Costs for Each Year

This cost is estimated on a yearly basis as the cost of gas and/or oil used in production. Only one value needs to be estimated and entered.

(12) Water Costs for Each Year

All water charges incurred in production (excluding capital investments) are included here. The figure should be a dollar cost per year.

(13) Sewer and Waste Disposal Costs for Each Year

All sewer and waste disposal costs incurred in production (excluding capital investments) are included here. This figure should be a dollar cost per year.

(14) Repair and Maintenance Costs for Each Year

This cost is estimated on a <u>yearly basis</u>. Labor and materials costs associated with the repair and maintenance of operating equipment and production facilities are included here.

(15) Supplies Costs for Each Year

This cost is estimated on a <u>yearly basis</u>. Production supplies such as tools, towels, cleaning supplies, and other items which are not identified as indirect material and do not become part of the finished product should be included here.

(16) Leased Equipment Costs for Each Year

This is estimated as a monthly charge. This item is the sum of all charges for any leased equipment or machinery which is directly related to production.

<u>General and Administrative Expense Inputs</u>

(1)-(6) Number of Employees and Their Salaries for Each Year

The first three inputs in this section for each year are the number of employees in: (1) clerical, (2) staff, and (3) management positions. There may be up to 20 employees in each category. Three inputs, representing the salaries of each employee, follow:

(4) the <u>Monthly Salaries</u> of Clerical Personnel with a salary for each clerical person listed above.

(5) the <u>Monthly Salaries</u> of Staff Personnel, again with a salary for each person listed, and finally

(6) the <u>Monthly Salaries</u> of Management Personnel.

(7)-(9) Fringe Benefits for Each Year

These costs are given as a percentage of salary. For convenience. a separate rate for the three (3) salaried categories is given. The benefits include social security, unemployment compensation, workmen's compensation, vacation pay, sick leave pay, insurance plan, retirement

plan and holidays. The three rates must be given in the proper order: clerical first, staff second, management third.

(10) Travel Costs for Each Year

Those expenses related to travel by company personnel (i.e., transportation plus living expenses) are estimated on a yearly basis and entered directly.

(11) Entertainment Costs for Each Year

Those expenses (i.e., transportation, living and gifts, etc.) associated with non-company personnel are entered as a direct dollar cost per year.

(12)-(13) Insurance Costs for Each Year

Two categories are used. Both require yearly estimates of dollar costs. The first is Liability Insurance (12) and the second is Property Damage Insurance (13).

(14) Telephone Costs for Each Year

Telephone expenses represent all charges billed against the company and are estimated monthly.

(15) Postage and Freight Costs for Each Year

The postage and freight costs are estimated together as a single value, again on a monthly basis. All postage incurred in communications, exclusive of shipment or transportation charges on raw materials and finished products, should be included. Transportation costs in excess of those costs included in the price of direct and indirect materials should be included. Other freight charges not elsewhere accounted for should also be included.

(16) Cost of Office Supplies for Each Year

This value is estimated on a yearly basis. It includes stationery, payroll checks, pencils, writing instruments and other miscellaneous desk- and office-type items. The figure should be entered as a direct dollar amount.

(17) Cost of Office Utilities (excluding Phone)
for Each Year

This must be a monthly estimate of the heat, water, electricity, etc. that is not charged to production. Again, as before, a direct dollar amount is entered.

(18) Cost of Leased Equipment for Each Year

A monthly charge to include lease charges incurred on office equipment, office furniture, automobile, and other equipment used by salaried personnel other than in manufacturing is specified here. The direct dollar amount is input.

(19) Cost of Employee Relations for Each Year

Expenses for company functions such as picnics, dinners, safety awards and so forth are included here. The estimated value is entered directly as a yearly cost.

(20) Cost of Business License Tax for
Each Year

City, county, state and federal licenses assessed the company are included here. This is a yearly estimate but does not include the $50 Montana Corporate Income Tax minimum. The dollar amount is entered directly.

(21) Cost of Contract Services for Each Year

A dollar cost per month is entered for such things as consulting fees, legal fees, office janitorial services, office equipment service

contracts, etc. The dollar amount is entered directly.

(22) Advertising Costs for Each Year

Expenses incurred for promotional and product advertising, either for the company or for specific products, but exclusive of advertising carried out by the sales division, are included here. This is a yearly estimate and is a dollar amount for all products. Again, the amount is entered directly.

(23) Leased Plant Costs for Each Year

Lease charges paid for land and/or buildings including any taxes which are chargeable to the leasee as part of the lease are included here. The figure is a monthly value and is entered directly.

(24) Cost of Sales Adjustments for Each Year

A yearly estimate of the dollar amount paid out as a result of refunds, rebates, or uncollectable accounts is entered here. The figure is a dollar amount per year and it is entered directly.

(25) Miscellaneous or Other Costs

All general and administrative costs not included above can be added here. This is a yearly cost and is entered as a dollar amount directly. Note: this amount could be used as a contingency for the G & A account.

Financing Costs Figures

(1) Amount of Equity Capital Available

This is a lump sum figure used to represent the amount of money available from owners to invest in the project. The figure is a dollar estimate of all money that will be available during the growth years of the firm.

(2)-(3) Potential Loan Conditions

In order to generate a picture of the cash flow for an enterprise, it is necessary to estimate the annual interest and principle payments required for repayment of a loan. The program will calculate an estimate of the amount of loan needed while the analyst must provide an estimated interest rate (2) and repayment period for the loan(3). This repayment period must be less than 30 years.

Capital Expenditures Input

(1) Building and Equipment

The first input in this section is the number of items to be listed below in a matrix to input data about building and equipment requirements. There may be as many as 50 items in this list. Each row represents a different item. For each item the following data must be entered.

Item No.	Tax Life	Freight Cost	Installation	Salvage Value	Item Cost	Property Class	*	**
1	(years)	(dollars)	(dollars)	(dollars)	(dollars)	(1 to 10)	(0 or 1)	(0 or 1)
2								
3								
4								
.								
.								
.								

The first piece of data is the tax life in years. This must be entered for each item. The next four pieces of data about each item represent various costs, entered in dollars. The sixth piece of data is a property tax class for Montana.

The seventh piece of data (*) for each item is either a "zero" or a "1." If the item is eligible for additional first year depreciation allowance within current IRS restrictions, enter a "1." If not eligible, enter a "zero." In the eighth column (**) enter a "zero" for straight-line depreciation of the value of the item or enter a "1" for sum-of-years digit's depreciation.

(2)-(8) Land and Improvements

The following is a list of possible land and improvement needs to be costed, if these improvements are involved.

	For example:
(2) Land	10000.0
(3) Road	3000.0
(4) Well	0.0
(5) Grading	400.0
(6) Fencing	0.0
(7) Utility Connections	60.0
(8) Other Improvements	500.0

(9) Contingency Fund

This contingency fund is set up to allow for unforeseen initial expenses and is entered as a dollar amount.

(10)-(13) Tax Life

For the improvements listed previously, estimates need to be made of the tax lives for depreciation purposes of the:

(10) Road ______ years

(11) Well ______ years

(12) Fence ______ years

(13) Other ______ years

(14) Corporate Standing

To distinguish a corporate venture from other forms, enter a zero or 1 at this point. One signifies a corporation; zero for all others.

(15) The Last 3 Years' Taxable Income

For example:

Years Ago	Taxable Income
3	10400.0
2	9700.0
1	8300.0

Input Data Needed by Analyst

(1) Local Mill Rate for Each Year

This input represents the tax levy of the county involved. This rate should be entered as the decimal per cent times 1000 (e.g., .240 is entered as 240.0).

(2) Electrical Power Rate Schedule

This information is entered to allow the program to calculate a best estimate of production utility costs from other input data. The program allows for 6 levels or classes according to kilowatt usage. The current shcedule offered by Montana Power Company is as follows:

Class 1) First 20	KWH	$1.40
Class 2) Next 80	"	0.0444/KWH
Class 3) Next 1700	"	0.0377/KWH
Class 4) Next 3200	"	0.0220/KWH
Class 5) Next 15000	"	0.0122/KWH
Class 6) Next 80000	"	0.0110/KWH

In other words, the first 20 KWH cost $1.40. The <u>next</u> 80 KWH cost $.0444 each, etc. This schedule reflects utility costs on a monthly basis.

Working Capital Input

In order to estimate total capital needed for the enterprise under study, the amount of necessary working capital must be estimated.

(1) Average Number of Units of Raw Material in Inventory for Each Year

For each product, an estimate is required of the amount of raw material available by deciding on the amount of product output that should be stored in inventory. For example, if normal output is 100 units a day of product x and a 10-day supply is desired, 1000 units of raw material should be stored.

(2) Average Number of Units of Finished Product in Inventory for Each Year

For each product an estimate is required of the amount of product that should be kept in inventory.

(3) Start-Up Expenses at Time Zero

This cost is a one time expense needed to start the operation. An estimate in terms of dollars is entered directly.

(4) Accounts Receivable - Accounts Payable

In order to estimate the funds tied up as a result of the accounting/financial process there is a need to estimate the number of days until the flow of funds stabilizes. This information must be entered in terms of <u>production days</u>. If a 5-day week is planned and a month appears to be sufficient time to establish stability, the entry would be 22 days.

WORKSHEETS

The following worksheets have been designed to help record the data needed to use the Pro Forma Cash Flow Analysis Program. Please review this section of the User's Manual before attempting to use these sheets. Also, please note the size restrictions where applicable. These restrictions are program size limitations and must be followed. (Note: all data entered as a per cent [%] should be entered as the decimal equivalent of the per cent.)

STUDY PARAMETERS INPUT

(1) Number of years of real growth (≤ 6).

(2) Number of years over which the study is to be conducted (≤ 20).

(1)　　(2)

SALES INPUT

(1) Number of products for each year (≤ 10).

Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6-

Product

YEAR 1:	1	2	3	4	5	6	7	8	9	10
(2) Selling price ($)										
(3) Demand										
(4) Discount (%)										
YEAR 2:										
(2) Selling price ($)										
(3) Demand										
(4) Discount (%)										

Product

YEAR 3:	1	2	3	4	5	6	7	8	9	10
(2) Selling price ($)										
(3) Demand										
(4) Discount (%)										
YEAR 4:										
(2) Selling price ($)										
(3) Demand										
(4) Discount (%)										
YEAR 5:										
(2) Selling price ($)										
(3) Demand										
(4) Discount (%)										
YEAR 6:										
(2) Selling price ($)										
(3) Demand										
(4) Discount (%)										

LABOR AND MATERIALS INPUT

(1) Number of hourly wage classes for each year (≤ 10).

Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6-

Wage Class

YEAR 1:	1	2	3	4	5	6	7	8	9	10
(2) Hourly wage rates ($)										

(3) Number of labor hours by product by wage class.

Product

	1	2	3	4	5	6	7	8	9	10
Wage Class 1										
Wage Class 2										
Wage Class 3										
Wage Class 4										
Wage Class 5										
Wage Class 6										
Wage Class 7										
Wage Class 8										
Wage Class 9										
Wage Class 10										

Product

	1	2	3	4	5	6	7	8	9	10
(4) Indirect labor (% of direct labor)										
(5) Direct material ($)										
(6) Indirect material ($)										

Wage Class

EAR 2:	1	2	3	4	5	6	7	8	9	10
(2) Hourly wage rates ($)										

(3) Number of labor hours by product by wage class.

Product

	1	2	3	4	5	6	7	8	9	10
Wage Class 1										
Wage Class 2										
Wage Class 3										
Wage Class 4										
Wage Class 5										
Wage Class 6										
Wage Class 7										
Wage Class 8										
Wage Class 9										
Wage Class 10										

Product

	1	2	3	4	5	6	7	8	9	10
(4) Indirect labor (% of direct labor)										
(5) Direct material ($)										
(6) Indirect material ($)										

YEAR 3:

	Wage Class 1	2	3	4	5	6	7	8	9	10
(2) Hourly wage rates ($)										

(3) Number of labor hours by product by wage class.

	Product 1	2	3	4	5	6	7	8	9	10
Wage Class 1										
Wage Class 2										
Wage Class 3										
Wage Class 4										
Wage Class 5										
Wage Class 6										
Wage Class 7										
Wage Class 8										
Wage Class 9										
Wage Class 10										

	Product 1	2	3	4	5	6	7	8	9	10
(4) Indirect labor (% of direct labor)										
(5) Direct material ($)										
(6) Indirect material ($)										

YEAR 4:

	Wage Class									
	1	2	3	4	5	6	7	8	9	10
(2) Hourly wage rates ($)										

(3) Number of labor hours by product by wage class.

	Product									
	1	2	3	4	5	6	7	8	9	10
Wage Class 1										
Wage Class 2										
Wage Class 3										
Wage Class 4										
Wage Class 5										
Wage Class 6										
Wage Class 7										
Wage Class 8										
Wage Class 9										
Wage Class 10										

	Product									
	1	2	3	4	5	6	7	8	9	10
(4) Indirect labor (% of direct labor)										
(5) Direct material ($)										
(6) Indirect material ($)										

Wage Class

YEAR 5:	1	2	3	4	5	6	7	8	9	10
(2) Hourly wage rates ($)										

(3) Number of labor hours by product by wage class.

Product

	1	2	3	4	5	6	7	8	9	10
Wage Class 1										
Wage Class 2										
Wage Class 3										
Wage Class 4										
Wage Class 5										
Wage Class 6										
Wage Class 7										
Wage Class 8										
Wage Class 9										
Wage Class 10										

Product

	1	2	3	4	5	6	7	8	9	10
(4) Indirect labor (% of direct labor)										
(5) Direct material ($)										
(6) Indirect material ($)										

YEAR 6:

	Wage Class									
	1	2	3	4	5	6	7	8	9	10
(2) Hourly wage rates ($)										

(3) Number of labor hours by product by wage class.

	Product									
	1	2	3	4	5	6	7	8	9	10
Wage Class 1										
Wage Class 2										
Wage Class 3										
Wage Class 4										
Wage Class 5										
Wage Class 6										
Wage Class 7										
Wage Class 8										
Wage Class 9										
Wage Class 10										

	Product									
	1	2	3	4	5	6	7	8	9	10
(4) Indirect labor (% of direct labor)										
(5) Direct material ($)										
(6) Indirect material ($)										

SALES EXPENSE INPUT

(1) Sales expense (as a per cent of total revenue) for each year.

Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6-

OPERATING EXPENSE INPUT

	Year 1	2	3	4	5	6-
(1) Number of hours worked per day						
(2) Number of hours worked per week						
(3) Cost/hour of all supervision ($)						
(4) Fringe benefits (% of labor cost)						
(5) Yearly labor variance ($)						
(6) Estimated other costs ($)						
	//////////	//////////	//////////	//////////	//////////	//////////

	Year 1	2	3	4	5	6-
(7) Number of watts used for production area lights						
(8) Number of watts used for production area heat						
(9) Number of watts used for other production needs						
(10) Total horsepower of production equipment						
(11) Yearly cost of gas and/or oil ($)						
(12) Yearly cost of water used for production ($)						
(13) Yearly cost of sewer and waste disposal ($)						
(14) Yearly cost of repairs and maintenance ($)						
(15) Yearly cost of production-oriented supplies ($)						
(16) Monthly cost of leased production equipment ($)						
	//////////	//////////	//////////	//////////	//////////	//////////

GENERAL AND ADMINISTRATIVE EXPENSE INPUT

YEAR 1:

Number of employees in each salary category (≤ 20).

______ (1) clerical ______ (2) staff ______ (3) management

(4) Salaries of all clerical employees.

(5) Salaries of all staff employees.

(6) Salaries of all management employees.

YEAR 2:

Number of employees in each salary category (≤ 20).

__________ (1) clerical   __________ (2) staff   __________ (3) management

(4) Salaries of all clerical employees.

________ ________ ________ ________ ________ ________ ________ ________ ________ ________

________ ________ ________ ________ ________ ________ ________ ________ ________ ________

(5) Salaries of all staff employees.

________ ________ ________ ________ ________ ________ ________ ________ ________ ________

________ ________ ________ ________ ________ ________ ________ ________ ________ ________

(6) Salaries of all management employees.

________ ________ ________ ________ ________ ________ ________ ________ ________ ________

________ ________ ________ ________ ________ ________ ________ ________ ________ ________

YEAR 3:

Number of employees in each salary category (≤ 20).

________ (1) clerical   ________ (2) staff   ________ (3) management

(4) Salaries of all clerical employees.

______ ______ ______ ______ ______ ______ ______ ______ ______ ______

______ ______ ______ ______ ______ ______ ______ ______ ______ ______

(5) Salaries of all staff employees.

______ ______ ______ ______ ______ ______ ______ ______ ______ ______

______ ______ ______ ______ ______ ______ ______ ______ ______ ______

(6) Salaries of all management employees.

______ ______ ______ ______ ______ ______ ______ ______ ______ ______

______ ______ ______ ______ ______ ______ ______ ______ ______ ______

YEAR 4:

Number of employees in each salary category (≤ 20).

________ (1) clerical   ________ (2) staff   ________ (3) management

(4) Salaries of all clerical employees.

(5) Salaries of all staff employees.

(6) Salaries of all management employees.

YEAR 5:

Number of employees in each salary category (≤ 20).

__________ (1) clerical   __________ (2) staff   __________ (3) management

(4) Salaries of all clerical employees.

__________ __________ __________ __________ __________ __________ __________ __________ __________ __________

__________ __________ __________ __________ __________ __________ __________ __________ __________ __________

(5) Salaries of all staff employees.

__________ __________ __________ __________ __________ __________ __________ __________ __________ __________

__________ __________ __________ __________ __________ __________ __________ __________ __________ __________

(6) Salaries of all management employees.

__________ __________ __________ __________ __________ __________ __________ __________ __________ __________

__________ __________ __________ __________ __________ __________ __________ __________ __________ __________

YEAR 6:

Number of employees in each salary category (≤ 20).

________ (1) clerical

________ (2) staff

________ (3) management

(4) Salaries of all clerical employees.

________ ________ ________ ________ ________ ________ ________ ________ ________ ________

________ ________ ________ ________ ________ ________ ________ ________ ________ ________

(5) Salaries of all staff employees.

________ ________ ________ ________ ________ ________ ________ ________ ________ ________

________ ________ ________ ________ ________ ________ ________ ________ ________ ________

(6) Salaries of all management employees.

________ ________ ________ ________ ________ ________ ________ ________ ________ ________

________ ________ ________ ________ ________ ________ ________ ________ ________ ________

Year

	1	2	3	4	5	6-
(7) Fringe benefits (% of salary) for clerical						
(8) Fringe benefits (% of salary) for staff						
(9) Fringe benefits (% of salary) for management						
(10) Yearly cost of travel for company personnel ($)						
(11) Yearly cost of entertainment (non-company) ($)						
(12) Yearly cost of liability insurance ($)						
(13) Yearly cost of property damage insurance ($)						
(14) Monthly cost of telephone service ($)						
(15) Monthly cost of postage and freight ($)	//////////	//////////	//////////	//////////	//////////	//////////
(16) Yearly cost of office supplies ($)						
(17) Monthly cost of office utilities ($)						
(18) Monthly cost of leased office equipment ($)						
(19) Yearly cost of employee relations ($)						
(20) Yearly cost of business license tax ($)						
(21) Monthly cost of all contract services ($)						
(22) Yearly cost of advertising ($)						
(23) Monthly cost of any leased plant ($)						
(24) Yearly cost of all sales adjustments ($)						
(25) Yearly cost of other items not included above ($)	//////////	//////////	//////////	//////////	//////////	//////////

FINANCING COST INPUT

(1) The amount of equity capital available ($) __________

(2) Interest rate of potential loan money (%) __________

(3) Number of years for which money can be borrowed (≤ 30). //////////

CAPITAL EXPENDITURES INPUT

(1) Number of items in the Building and Equipment list (≤ 50). __________

Item No.	Tax Life	Freight Cost	Installation	Salvage Value	Item Cost	Property Class	*	**
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								

Item No.	Tax Life	Freight Cost	Instal-lation	Salvage Value	Item Cost	Property Class	*	**
16								
17								
18								
19								
20								
21								
22								

*NOTE: A "1" should be entered in this column if the item is eligible for additional first year depreciation; a "0" if not.

**NOTE: A "0" should be entered in this column for straight-line depreciation, a "1" for sum-of-years-digit's method.

(2) Cost of land ($) ________

(3) Cost of road ($) ________

(4) Cost of well ($) ________

(5) Cost of grading ($) ________

(6) Cost of fencing ($) ________

(7) Cost of utility connections ($) ________

(8) Cost of all other improvements ($) ________

(9) Amount of contingency fund ($) ________
//////////

(10) Tax life of road __________

(11) Tax life of well __________

(12) Tax life of fence __________

(13) Tax life of other improvements __________
//////////

(14) Corporate standing: 1 if corporation, 0 if not. __________

(15) Last three years taxable income: 3 years ago __________

2 years ago __________

Last year __________
//////////

INPUT DATA NEEDED BY ANALYST

(1) Mill tax levy for each year (input as the decimal per cent times 1000, i.e., as 240.0).

__________	__________	__________	__________	__________	__________
Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6-

(2) Electric power rate schedule

Class	Upper Kilowatt Level	Cost/ Kilowatt
1	__________	__________
2	__________	__________
3	__________	__________
4	__________	__________
5	__________	__________
6	__________	__________

ORKING CAPITAL INPUT

(1) Average number of units of raw material in inventory.

(2) Average number of units of finished goods in inventory.

Product

	1	2	3	4	5	6	7	8	9	10
EAR 1:										
(1) Raw material										
(2) Finished goods										
EAR 2:										
(1) Raw material										
(2) Finished goods										
EAR 3:										
(1) Raw material										
(2) Finished goods										
EAR 4:										
(1) Raw material										
(2) Finished goods										

EAR 5:	1	2	3	4	5	6	7	8	9	10
(1) Raw material										
(2) Finished goods										
EAR 6:										
(1) Raw material										
(2) Finished goods										

(3) Startup expense ($) at time zero __________

(4) Estimated number of days of production until the cash flow of the enterprise reaches a steady state //////////